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Memorandum for Record November 16, 2001

By Richard McCurdy, Manager, Airworthiness Law Branch, AGC-210

Subject: Door Reinforcement

At 3 PM today, Kim Smith of AIR-100 and I met with representatives of Flight Structures Inc. (FSI) a division of B/E Aerospace. Attending on behalf of FSI were Joan Wages, attorney Susan Jollie, and FSI VP and General Manager Keith Aakre.

FSI does aircraft interior modification work and has developed a flight deck security door system to enhance flight deck security. They are concerned that the standards being considered for an FAA door requirement are below those needed to ensure the integrity of the flight deck door. Attached are two pages that reflect FSI's views presented to us at today's meeting.

On the second page of the attached material, we have deleted two short paragraphs that describe in detail a threat scenario that concerns FSI. This deletion is made to avoid disclosure of this threat scenario.

ROLE OF FLIGHT DECK DOOR IN A DECOMPRESSION EVENT

Flight Structures, Inc. has investigated a multitude of threat scenarios regarding access to the airplane flight deck. In our investigations, we considered the possibility that a decompression event could be part of a planned threat scenario.

During a decompression event, some flight deck door designs permit the entire door to open to facilitate decompression venting. This could provide unwanted access to the flight deck or a line of sight to the flight deck occupants making them vulnerable to small arms fire.

Therefore we believe that it must be a requirement that access to the flight deck be denied in the case of a decompression event. Decompression venting must be achieved without the benefit of the full door opening.

This requirement would provide an added level of security to the flight deck and overall passenger safety.

FLIGHT DECK DOOR IMPACT ENERGY REQUIREMENT

Flight Structures, Inc. has investigated a multitude of threat scenarios regarding access to the airplane flight deck. As a result of our investigations and analysis, we question the 300-Joule door, bolt and hinge energy requirement proposed by the Aviation Rulemaking Advisory Committee Security Harmonization Working Group.

Flight Structures, Inc. believes the 300-Joule limit is inadequate to address the most likely scenario to occur in airline service.

To accommodate an impact energy level of 500-Joules, we believe that the flight deck door surround structure must be capable of locally transferring these impact loads into the airplane surround structure. This may necessitate replacement and/or reinforcement of the flight deck doorposts.